

Complete Summary

TITLE

Asthma: percentage of members with persistent asthma who had at least one dispensed prescription for inhaled corticosteroids, nedocromil, cromolyn sodium, leukotriene modifiers, or methylxanthines in the measurement year.

SOURCE(S)

National Committee for Quality Assurance (NCQA). HEDIS 2006. Health plan employer data & information set. Vol. 2, Technical specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2005. 350 p.

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of enrolled members 5 to 56 years of age during the measurement year who were identified as having persistent asthma during the year prior to the measurement year and who were appropriately prescribed medication during the measurement year.

This process measure evaluates if members with persistent asthma are prescribed medications that are acceptable as primary therapy for long-term asthma control. The list of acceptable medications derives from the National Heart, Lung and Blood Institute's (NHLBI) National Asthma Education Prevention Program (NAEPP) guidelines.

RATIONALE

Asthma-related suffering, cost and death can be greatly reduced through effective treatment with long-term controller medications. While there are a number of acceptable therapies for people with persistent asthma, the best available evidence indicates that inhaled corticosteroids are the preferred primary therapy. For people with moderate-to-severe asthma, inhaled corticosteroids are the only recommended primary therapy.

PRIMARY CLINICAL COMPONENT

Asthma; inhaled corticosteroids; nedocromil; cromolyn sodium; leukotriene modifiers; methylxanthines

DENOMINATOR DESCRIPTION

Commercial, Medicaid members (report each product line separately) 5 to 56 years of age by December 31 of the measurement year with persistent asthma* (see the "Description of Case Finding" field in the Complete Summary)

*Persistent asthma: Refer to the original measure documentation for steps to identify members with persistent asthma.

NUMERATOR DESCRIPTION

For each member in the denominator, those who had at least one dispensed prescription for inhaled corticosteroids, nedocromil, cromolyn sodium, leukotriene modifiers, or methylxanthines during the measurement year. The managed care organization (MCO) must use the National Drug Code (NDC) list provided on NCQA's Web site at Ncqa.org to identify appropriate prescriptions.

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

NATIONAL GUIDELINE CLEARINGHOUSE LINK

- [Expert Panel Report: guidelines for the diagnosis and management of asthma. Update on selected topics.](#)

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Overall poor quality for the performance measured
Use of this measure to improve performance
Variation in quality for the performance measured

EVIDENCE SUPPORTING NEED FOR THE MEASURE

National Committee for Quality Assurance (NCQA). The state of health care quality 2005: industry trends and analysis. Washington (DC): National Committee for Quality Assurance (NCQA); 2005.

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Accreditation
Decision-making by businesses about health-plan purchasing
Decision-making by consumers about health plan/provider choice
Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Managed Care Plans

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Measure is not provider specific

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

TARGET POPULATION AGE

Age 5 to 56 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Data are stratified by age, including children (5- to 9-year-olds and 10- to 17-year-olds).

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Asthma is the most common chronic childhood disease, affecting an estimated 5 million children. Overall, approximately 15 million people in the United States have asthma and the prevalence increased 75% between 1980 and 1994.

EVIDENCE FOR INCIDENCE/PREVALENCE

National Institutes of Health, National Heart, Lung, and Blood Institute. Data fact sheet: asthma statistics. Bethesda (MD): U.S. Department of Health and Human Services; 1999 Jan 1.

ASSOCIATION WITH VULNERABLE POPULATIONS

Although it is difficult to disentangle the effects of race, socioeconomic status, poverty, environmental factors, and drug management, the fact remains that prevalence, morbidity, and mortality are higher among black and Hispanic children in every study that addresses this issue. Hospital admissions for asthma are two to five times higher among nonwhite than white children.

EVIDENCE FOR ASSOCIATION WITH VULNERABLE POPULATIONS

Carr W, Zeitel L, Weiss K. Variations in asthma hospitalizations and deaths in New York City. *Am J Public Health*1992 Jan; 82(1):59-65. [PubMed](#)

Crain EF, Weiss KB, Bijur PE, Hersh M, Westbrook L, Stein RE. An estimate of the prevalence of asthma and wheezing among inner-city children. *Pediatrics*1994 Sep; 94(3): 356-62. [PubMed](#)

Gerstman BB, Bosco LA, Tomita DK. Trends in the prevalence of asthma hospitalization in the 5- to 14-year-old Michigan Medicaid population, 1980 to 1986. *J Allergy Clin Immunol*1993 Apr; 91(4):838-43. [PubMed](#)

Halfon N, Newacheck PW. Trends in the hospitalization for acute childhood asthma, 1970-84. *Am J Public Health*1986 Nov; 76(11): 1308-11. [PubMed](#)

Lang DM, Polansky M. Patterns of asthma mortality in Philadelphia from 1969 to 1991. *N Engl J Med*1994 Dec 8; 331(23):1542-6. [PubMed](#)

Weiss KB, Wagener DK. Geographic variations in US asthma mortality: small-area analyses of excess mortality, 1981-1985. *Am J Epidemiol*1990 Jul; 132(1 Suppl):S107-15. [PubMed](#)

Wood PR, Hidalgo HA, Prihoda TJ, Kromer ME. Hispanic children with asthma: morbidity. *Pediatrics*1993 Jan; 91(1):62-9. [PubMed](#)

BURDEN OF ILLNESS

People with asthma collectively have more than 100 million days of restricted activity and 5,000 deaths annually. Approximately 2.1 persons per 100,000 population died from asthma in 1995. The mortality rate is higher among males (versus females) and blacks (versus whites).

EVIDENCE FOR BURDEN OF ILLNESS

National Institutes of Health, National Heart, Lung and Blood Institute. National asthma education and prevention program task force on the cost effectiveness, quality of care, and financing of asthma care [NIH Pub.No. 55-807]. Bethesda (MD): U.S. Department of Health and Human Services; 1996 Sep. 110 p.

UTILIZATION

People with asthma collectively have more than 1.81 million emergency department visits, an estimated 1.51 million visits to hospital outpatient departments, and about 500,000 hospitalizations in 1990. Approximately 7.5 million prescriptions were dispensed for asthma symptom management and prevention.

EVIDENCE FOR UTILIZATION

National Institutes of Health, National Heart, Lung, and Blood Institute. Data fact sheet: asthma statistics. Bethesda (MD): U.S. Department of Health and Human Services; 1999 Jan 1.

COSTS

Asthma-related medical expenditures were \$11.3 billion in the United States (U.S.) in 1998; direct costs accounted for \$7.5 billion and indirect costs were \$3.8 billion. Hospitalizations accounted for the single largest portion of direct costs.

EVIDENCE FOR COSTS

National Institutes of Health, National Heart, Lung, and Blood Institute. Data fact sheet: asthma statistics. Bethesda (MD): U.S. Department of Health and Human Services; 1999 Jan 1.

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Commercial, Medicaid members (report each product line separately) 5 to 56 years of age by December 31 of the measurement year with persistent asthma* who were continuously enrolled during the measurement year and the year prior to the measurement year with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment (commercial), or no more than a one-month gap in coverage during each year of continuous enrollment (Medicaid)

*The definition of persistent asthma is based on previous year's and the measurement year's service and medication use rather than a clinical measure of severity. The definitional approach was chosen for logistical and feasibility reasons so that an efficient reasonably standardized and sufficiently large population that allows unbiased MCO-to-MCO comparisons could be identified through administrative sources.

DENOMINATOR SAMPLING FRAME

Enrollees or beneficiaries

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Commercial, Medicaid members (report each product line separately) 5 to 56 years of age by December 31 of the measurement year with persistent asthma*

*Persistent asthma: Refer to the original measure documentation for steps to identify members with persistent asthma.

Exclusions

(Optional) Exclude from the eligible population all members diagnosed with emphysema and chronic obstructive pulmonary disease (COPD) any time on or prior to December 31 of the measurement year. Refer to the original measure documentation for ICD-9 codes to identify emphysema and COPD.

DENOMINATOR (INDEX) EVENT

Clinical Condition
Encounter
Institutionalization
Therapeutic Intervention

DENOMINATOR TIME WINDOW

Time window precedes index event

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

For each member in the denominator, those who had at least one dispensed prescription for inhaled corticosteroids, nedocromil, cromolyn sodium, leukotriene modifiers, or methylxanthines during the measurement year. The managed care organization (MCO) must use the National Drug Code (NDC) list provided on NCQA's Web site at Ncqa.org to identify appropriate prescriptions.

Exclusions

None

NUMERATOR TIME WINDOW

Fixed time period

DATA SOURCE

Administrative data

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Analysis by subgroup (stratification on patient factors, geographic factors, etc.)

DESCRIPTION OF ALLOWANCE FOR PATIENT FACTORS

This measure requires that separate rates be reported for Medicaid and commercial plans.

For each product line, the measure should be reported for each of three age stratifications (based on age as of December 31 of the measurement year) and as an overall rate:

- 5- to 9-year-olds
- 10- to 17-year-olds
- 18- to 56-year-olds
- total

The total is the sum of the three numerators divided by the sum of the three denominators.

STANDARD OF COMPARISON

External comparison at a point in time
External comparison of time trends
Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Use of appropriate medications for people with asthma (ASM).

MEASURE COLLECTION

[HEDIS® 2006: Health Plan Employer Data and Information Set](#)

MEASURE SET NAME

[Effectiveness of Care](#)

DEVELOPER

National Committee for Quality Assurance

INCLUDED IN

Ambulatory Care Quality Alliance
National Healthcare Quality Report (NHQR)

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2000 Jan

REVISION DATE

2005 Jan

MEASURE STATUS

This is the current release of the measure.

This measure updates a previous version: National Committee for Quality Assurance (NCQA). HEDIS 2004. Health plan employer data & information set. Vol. 2, Technical specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2003. 374 p.

SOURCE(S)

National Committee for Quality Assurance (NCQA). HEDIS 2006. Health plan employer data & information set. Vol. 2, Technical specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2005. 350 p.

MEASURE AVAILABILITY

The individual measure, "Use of Appropriate Medications for People With Asthma (ASM)," is published in "HEDIS 2006. Health Plan Employer Data & Information Set. Vol. 2, Technical Specifications."

For more information, contact the National Committee for Quality Assurance (NCQA) at 2000 L Street, N.W., Suite 500, Washington, DC 20036; Telephone: 202-955-3500; Fax: 202-955-3599; Web site: www.ncqa.org.

COMPANION DOCUMENTS

The following is available:

- National Committee for Quality Assurance (NCQA). The state of health care quality 2005: industry trends and analysis. Washington (DC): National Committee for Quality Assurance (NCQA); 2005. 74 p.

For more information, contact the National Committee for Quality Assurance (NCQA) at 2000 L Street, N.W., Suite 500, Washington, DC 20036; Telephone: 202-955-3500; Fax: 202-955-3599; Web site: www.ncqa.org.

NQMC STATUS

This NQMC summary was completed by ECRI on July 18, 2003. The information was verified by the measure developer on August 29, 2003. This NQMC summary was updated by ECRI on March 23, 2005 and again on September 29, 2005. The information was verified by the measure developer on December 2, 2005.

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For detailed specifications regarding the National Committee on Quality Assurance (NCQA) measures, refer to HEDIS Volume 2: Technical Specifications, available from the NCQA Web site at www.ncqa.org.

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